This paper discusses a study undertaken to examine the reaction of others to the behavior of depressed persons. The general hypotheses of the study are that (1) normal subjects respond differentially to the behavior of depressed patients; (2) this differential response is due to the fact that the target individuals are depressed, and not that they are patients; and (3) this pattern can be related to the symptomology of depression. More specifically, it was hypothesized that depressed persons induce depression and hostility in others, and consequently are rejected socially. The experiment involved a single telephone conversation between paired women. One woman of each pair was a college student, the other was either a depressed outpatient of a mental health center, a nondepressed outpatient, or a control group member. These conversations were then rated on various dimensions and a measure of postconversation mood was completed by each participant. The results are supportive of the hypotheses, and are discussed in terms of their implications. (SJL)
Social Interaction Involving Depressed Persons*

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Persistent yet untested assumptions in the study of depression are that support and information available to the depressed person are incongruent with his depression, and that therefore his continued display of symptoms is evidence of his distorted view of his environment. The behavioral approach to depression, as formulated by Ferster (1965, 1974) and further developed by Lewinsohn (Lewinsohn, 1974; MacPhillamy and Lewinsohn, 1973; Libet and Lewinsohn, 1973) assumes that a low rate of response-contingent positive reinforcement is a sufficient explanation for the behavior of the depressed person. It would seem that such an approach would give extensive attention to the environment in which depressed behavior occurs. However, Ferster continues with traditional assumptions: "We cannot assume the depressed person actually sees very much of the features of the social world around him (1973, p. 862)."

Lewinsohn and his associates have studied the behavior of depressed persons in home (Lewinsohn and Shaffer, 1971) as group therapy (Libet and Lewinsohn, 1973) settings, and have tended to attribute both the behavior of depressed persons and the contingencies offered to them, to the depressed persons lack of social skills. For instance, Libet and Lewinsohn (1973) interpret their data as indicating that depressed persons in group therapy are lower than controls on a number of measures of social skill: activity level, interpersonal range, rate of positive reactions emitted and action latency.
Their data are subject to alternative interpretations, however, particularly since they found those measures correlated with each other and with positive reactions received. While depressed persons may well be deficient in social skills, some of the observed differences in the group interaction may be due to the fact that fewer people are willing to interact with depressed persons (thereby giving a narrower interpersonal range and less opportunity for activity), and in this interaction emitted fewer positive responses (thereby also reducing the positive responses elicited from depressed persons). This second interpretation suggests that the dilemma of depressed persons is not so much that they lack normal social skills, but rather that they lack the special skills necessary to alter the contingencies offered to them.

Within a systems framework, Coyne (1976, in press) has argued that the depressed person and members of his social environment become enmeshed in an emergent interpersonal system of depressive symptom and countermanipulative response from the environment. The symptoms of the depressed person are aversive yet powerful in their ability to arouse guilt in others and to inhibit any direct expression of annoyance and hostility from others. Members of the social environment attempt to reduce the aversive behavior of the depressed person and alleviate the guilt it induces by manipulating him with ungenerous reassurance and support. At the same time, however, these same persons reject and avoid the depressed person. As discrepancies between the reassurance of others and their actual behavior becomes apparent, the depressed person is confirmed in his suspicions that he is not accepted and that further interactions cannot be assured. To maintain his increasingly uncertain security and control the behavior of others, the depressed person displays more symptoms and conveys more distress, and in doing so, further stimulates the depressive social process.
In a partial test of this model, the present study examined the reaction of others to the behavior of depressed persons. The general hypotheses were that a) normal subjects respond differentially to the behavior of depressed patients, b) this differential response is due to the fact that the target individuals are depressed, and not that they are patients, and c) this pattern can be related to the symptomatology of depression. More specifically, it was hypothesized that depressed persons induce depression and hostility in others, and consequently are rejected socially. It was further hypothesized that behavioral and content analysis measures would reveal that subjects focused on the depressed persons and their difficulties in the interactions in unsuccessful and unguenuine attempts to deal with the patients' depression. Finally, social perception questions were provided to test the hypothesis that others perceive depressed persons as exaggerating their plight, and that this perception is related to their overall response pattern.

METHOD

Subjects

Forty-five Miami University undergraduate females served as subjects. They were drawn from psychology classes as target individuals became available and were randomly assigned to treatment conditions. They, as well as the target individuals, were told that they would talk on the phone for twenty minutes to a stranger in a study of the acquaintance process.

Target Individuals

Fifteen depressed females were drawn from the Dayton, Ohio Good Samaritan Mental Health Center outpatient population. The Zung Self-Rating Depression Scale (SDS; Zung, 1965) was used to select these target individuals on the basis of depth of depression independent of diagnostic category or presenting problem.
Fifteen nondepressed outpatient females were drawn from the same mental health center. The Zung SDS was used to screen them on the criterion that marked depression should be absent.

Fifteen normal control females were drawn from the Dayton-Middletown area. These individuals were drawn from members of a hospital auxiliary, supermarket employees and customers, and neighbors of Miami University branch campus students. All were screened for depression.

An effort was made to control for age in these three groups and no significant differences occurred in the final samples.

Measures

The Today Form of the Multiple Affect Adjective Check List (Zuckerman and Lubin, 1965) was used to measure postconversation mood in both subject and target individuals. Social rejection was measured by a score derived from answers to a series of questions of the general form:

Would you like to meet this person?

would ___________ would not

Situations sampled were meeting this person, asking her for advice, sitting next to her on a three-hour bus trip, inviting her to the respondent's house, approving if a close relative were married to her, willingness to work with her on a job, and admitting her to the respondent's circle of friends.

Tapes of the phone conversations were scored for activity, ratio of time spent talking about the other person versus time spent talking about oneself, and number of approval responses. Additionally, raters blind with respect to the hypotheses rated the genuineness of the subjects on the five-point Carkhuff scale (Carkhuff, 1968; Carkhuff and Berenson, 1967) and additional raters scored transcripts of the tapes for hope statements using a content analysis scale.
Social perceptions of both subjects and target individuals were measured using two sets of scales. The first involved the question "How do you think this person would like you to see her?" and the second, "What do you think this person would be like if you really got to know her?" Each was followed by nine bipolar scales: sad-happy, pleasant-unpleasant, negative-positive, good-bad, comfortable-uncomfortable, strong-weak, cold-warm, high-low, and active-passive.

Procedure

Each subject was randomly paired with one target individual, and without seeing her, talked to her on the telephone for twenty minutes. Both received written and oral instructions that this was a study of the casual acquaintance process, and that each person was free to discuss or withhold what information she saw fit, except that neither was to reveal her last name or exact location. It was stressed that neither side know anything about the other, except that she was female, located somewhere in Ohio, and had volunteered to participate in the experiment. All participants were informed that the conversation would be taped and that a questionnaire would follow.

Following the phone conversations, all participants filled out the previously described questionnaires, and tapes and transcripts were rated by trained judges.

RESULTS

Subject Variables

Planned comparisons were conducted with all variables to evaluate the null hypothesis that no significant differences existed between the mean scores.
of subjects conversing with depressed patients and the pooled means of individuals conversing with either nondepressed patient or normal controls

\( H_0: \mu_0 = 1/2(\mu_{NP} + \mu_C) = 0 \). In terms of mood measures, subjects conversing with depressed target individuals were themselves subsequently more depressed (F=39.10, p < .001), hostile (F=45.82, p < .001) and anxious (F=42.31, p < .001) than subjects conversing with nondepressed patients or normal controls. They also rejected the depressed patients to a greater degree in terms of the overall social rejection score (F=6.58, p < .05). An additional set of orthogonal comparisons failed to disconfirm the hypothesis that there were no differences between the response to nondepressed patient controls and to normal controls.

With regard to behavioral and content analysis measures, subjects conversing with depressed patients had a significantly greater ratio of time spent talking about the other to time spent talking about self (F=8.39, p < .01). No significant differences were found on measures of overall activity, number of approval responses, hope statements, or genuineness. Additional orthogonal comparisons between the responses to nondepressed patient and normal controls revealed only that subjects talked more about the latter (F=5.46, p < .05).

With regard to social perception measures, a number of important differences were found. In answer to "How do you think this person would like you to see her?" subjects perceived depressed patients as wishing to be seen as sadder (F = 10.12, p < .01) and less pleasant, positive, comfortable and active (all p < .05). However, larger differences were found in answer to the question, "What do you think that this person would be like if you really got to know her?" Depressed patients were seen sadder, less comfortable, weaker, and lower in mood (all p < .005), more passive (p < .01) and somewhat colder and more negative (p < .05). Taking an overview, it seems that subjects perceived the depressed
socially desirable self-presentation, but nonetheless in reality as being much more depressed. The subjects did not seem to view the depressed patients as exaggerating their plight in order to receive sympathy.

Target Individual Variables

Other than the expected difference that depressed patients are more depressed, anxious, and hostile in mood than are either of the other two groups, the only significant difference that emerged was that depressed patients were more likely to invite the subjects to their homes! Other behavioral, content analysis, and questionnaire results did not prove significant.

Interrelationship Between Subject and Target Variables

An examination of the overall correlations between subject and target variables reveals strong relationships between target individual depression and anxiety mood scores and subject depression, anxiety, hostility, social rejection, and social perception scores.

Discussion and Conclusions

The depressed patients induced negative affect in those with whom they interacted and were rejected. The mood induced in the subjects by the depressed patients was significantly correlated with rejection and with social perception. An induction of negative affect has a powerful mediating effect between the stimulus behavior of an actor and the impact on the perceptions of an observer (Gouax, Lamberth, and Friedrich, 1972; Byrne, 1971). Gouax (1971) has argued that attraction responses are not simply a function of additional positive and negative internal states of the observer. Studies demonstrating this have typically employed a mood induction independent of the behavior of the target. Since in the present study, the mood induction was a direct result of some
behavior of the depressed target, the effect on interpersonal attraction could be expected to be even stronger. The mood induction by the depressed patients would seem to make them aversive and unattractive irrespective of what other qualities they possess or any adaptive behavior they display.

This has important implications for the treatment of depressed persons. Because of the mood induced in others by the depressed person, it can be expected that prosocial behaviors displayed by him would be less effective in determining his attractiveness and acceptance. It would seem, therefore, that less differential reinforcement would be available for these behaviors. To encourage greater emission of these behaviors by the depressed person without reducing his aversiveness could potentially further weaken his repertoire of socially adaptive behaviors because of the reduced reinforcement available.

The failure to find behavioral differences between depressed patients and other target individuals may seem surprising in light of the variables chosen. There obviously were differences in target individual behavior; the subjects were responding to these in their own mood changes and differential social perception scores. However, it is likely that the most significant aspects of depressive behavior are not to be found in counted "hm-hmm" responses or verbal activity measures, and further research is clearly needed.

In conclusion, normals react with hostility, depression, anxiety, and rejection to the behavior of depressed persons. This pattern seems related to the fact that these persons are depressed, and not that they are patients. It would seem that greater attention will have to be given to the involvement of the environment in the maintenance of depression, and any therapeutic intervention should take it into account. Furthermore, behavioral formulations must take into account the effect a powerful mood induction must have on the contingencies offered to depressed persons.